Chapter 3

Innovating at Last? The Rise of Blended Learning in Charter Schools

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Hopes, Fears, & Reality

A BALANCED LOOK AT AMERICAN CHARTER SCHOOLS IN 2012

National Charter School Resource Center

CRPE REINVENTING PUBLIC EDUCATION

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When charter schools were created in the 1990s, they were intended to spur innovation in America's K–12 school system. Charters, it was thought, would look radically different from what we knew: schools divided into conventional classrooms in conventional grades.

Some charter schools fulfilled that hope. All too often, however, charter schools looked pretty conventional. Even the charters that stand out as significant because of the outstanding results of their low-income students, the schools' efforts to replicate, and the schools' adherence to a "no-excuses" mantra look very traditional, perhaps even old-fashioned.

Reed Hastings, the chief executive officer of Netflix and a board member of the California Charter Schools Association, has summarized the approach of these schools to education as "we can solve anything by simply working harder." That hard work is evident in the schools' longer hours, stricter discipline procedures and codes of conduct, contracts with families, and high expectations for students and staff. Are these practices admirable? Sure. Are they necessary? Perhaps.

Yet have charter leaders been innovators of either the breakthrough or the disruptive variety? Not really. By and large, charter leaders have not fundamentally redefined schooling. They still have age-based classrooms with one teacher and many students, they have not improved productivity, and they have not widely scaled success.

Today, this appears to be changing as no-excuses charter networks across the United States are experimenting more and more with blended learning in various forms—a move that could begin to change everything about the dominant schooling model in our society. The Clayton Christensen Institute for Disruptive Innovation

(the Christensen Institute; formerly Innosight Institute), which conducts research into blended learning, defines blended learning as a formal education program in which a student is learning at least in part through online learning; has some control over learning time, place, path, and/or pace; is schooled at least in part at a supervised brick-and-mortar facility; and has integrated learning experiences among different learning modalities within a course or a subject. In other words, blended learning is where online learning and traditional schooling meet. Beyond this, blended learning can look very different from school to school in terms of the programs used, the ratio of virtual to face-to-face instruction, the physical layout of the school space, and how students spend their time (Staker & Horn, 2012).

Most charter management organizations (CMOs) are still tinkering with blended learning but not necessarily upending the dominant traditional classroom structure. However, if California, which has often served as a bellwether for the rest of the United States, is any indication, charters may be entering the innovation game in earnest.

In summer 2012, we conducted a survey of CMOs operating in California to learn to what extent they were integrating blended learning into their instruction and how they were doing so. The survey revealed that at least one fourth of California CMOs are now using blended learning. In many cases, this has been driven largely by California's already low funding of public charter schools coupled with increased budget cuts. The survey results, however, reveal something striking: The charter leaders adopting online instruction all say they are doing so not only for efficiency's sake but also because they believe it will bolster student learning.

These two factors—a darkening budget picture across the United States and a continued drive to boost student results—now seem to be causing established CMOs to implement blended-learning solutions, many of which mimic models used by other CMOs. New charters with plans to scale into CMOs are also pushing the field by creating new blended-learning models. For the first time, perhaps, the charter sector is fulfilling its promise to drive new kinds of innovations in schooling.

THE LAUNCH OF ROCKETSHIP EDUCATION

For years, technology was largely missing from charter schools. On the one hand, there was some logic to this. For most of its history, educational technology had failed to deliver the results necessary to justify its expense. On the other hand,

something did not add up. In the last two decades, technology has revolutionized much of our society and has enabled dramatic innovation in many sectors. Charter schools were supposed to drive innovation. Why were they not at least experimenting—or even tinkering—in this realm?

Slightly more than a decade ago, some full-time virtual charter schools were created. Many states opened online schools that offered supplemental courses, and districts began using online learning to fill in gaps in their offerings. Yet, by and large, the brick-and-mortar charters did not budge. In the last few years, however, that has begun to change. New entrants in the charter school scene are pioneering blended-learning solutions, producing great student results, and looking to scale. Consequently, many of the established CMOs are finally paying attention to educational technology.

Rocketship Education was arguably the catalyst for the charter school sector's shift.[1] Founded in 2006, Rocketship's first school opened in San Jose in 2007. A year later, the elementary school began to turn heads when it received an astonishingly high score of 925 on California's Academic Performance Index. At a school where nearly three fourths of the students were English language learners (ELLs) and nearly 9 in 10 students were eligible for free or reduced-price lunch, 90 percent of the students were proficient in mathematics and 83 percent were proficient in English language arts. The school was the top-ranked elementary school in San Jose and Santa Clara County for low-income students and outperformed the Palo Alto Unified School District, where only 9 percent of the students were ELLs and 7 percent were eligible for free or reduced-price lunch. Since then, Rocketship has opened more elementary schools, which have consistently been the highest performing, low-income schools in Santa Clara County.

Other charter schools across the United States were, of course, helping their students achieve great results, but when people looked closer at Rocketship, they saw some things that made the school stand out. Notable among them is the use of blended learning. Rocketship students rely heavily on technology; they rotate between more traditional classrooms and online instruction, the latter of which is delivered in a learning lab in two-hour blocks and monitored by instructional aides rather than delivered by classroom teachers. In the learning

[1] The term *charter management organization* describes networks of branded charter schools, but technically speaking, Rocketship Education is not a CMO; it owns and operates its schools rather than just advising them.

labs, students work on various online mathematics and reading programs to learn and hone basic skills so that teachers in the traditional classes can focus more on higher-order thinking skills. The online programs include everything from mathematics and reading games to more conceptual problem solving. Although Rocketship has struggled throughout its existence to find enough high-quality online programs to fill the time in the learning lab and continues to struggle to connect the students' results from the online programs to their work offline, it has made progress on both of these fronts each year and will debut a new model design in its schools going forward to connect these experiences even more.

Blended learning changes the traditional schooling human capital model and allows Rocketship schools to operate in smaller, more efficient buildings—which is important for charters that do not receive funds to cover capital costs. The school's use of technology and paraprofessionals also eliminates the need for one in four teachers (Danner, 2010). Together, these efficiencies save each school approximately $500,000 per year compared with traditional school expenditures. Rocketship funnels these savings into paying for an academic dean for each school, who focuses on coaching teachers; an assistant principal, who manages the learning lab and is preparing to become a principal; and teacher salaries that are 20 percent greater than those of surrounding districts. Unlike many top charter schools, which have costs greater than what the public funds and therefore rely on a significant dose of philanthropic funding, Rocketship schools do not require philanthropy for their day-to-day operations.

In essence, Rocketship seems to be a disruptive innovation relative to other charter schools—complete with a new business model and technology enabling it to expand rapidly.[2] Rocketship may have the potential to reset the charter sector's relationship with philanthropy completely; philanthropic funds can now help with the development of the education technology ecosystem and support a favorable regulatory environment instead of being used for day-to-day operational costs.

When the Charter School Growth Fund invested $2.3 million to scale Rocketship's operations in 2008, the dialogue regarding technology in the charter school world started to change. Rocketship, which had 320 students at the time of the investment, has aggressive scaling plans relative to other charters. It intends to open clusters of 20 to 100 schools in 50 cities across the United States and

[2] A disruptive innovation is one that transforms a sector characterized by expensive, inaccessible, and complicated products and services into one characterized by affordable, convenient, and simple ones.

ultimately serve 1 million students by 2030 (Rocketship Education, n.d.). Given that the U.S. elementary and middle school population is slightly under 40 million students total, these plans have turned heads. By comparison, the Knowledge Is Power Program (KIPP), a network of charter schools that was founded in 1994 and began scaling in earnest beyond its original two schools in 2000, has 125 schools open in the 2012–13 school year that serve approximately 41,000 students.

Despite Rocketship's successes, other CMO leaders still held back and seemed hesitant to innovate. Many privately wondered why they should experiment when their students were achieving great results and their schools were not experiencing financial challenges. They noted Rocketship's ongoing struggle with finding educational software that was good enough and the challenges of interpreting data from multiple online providers. The line uttered, reminiscent of many other leaders who had been disrupted in many other sectors, was as follows: "We'll wait until the technology is good enough."

EXPANDING INNOVATION IN THE WEST

Shortly after Rocketship's debut, Carpe Diem Collegiate Middle and High School, a charter school in Yuma, Arizona, began to draw attention for its efforts with blended learning. Carpe Diem had been operating as a charter school in Arizona well before Rocketship was founded but did not receive much notice until the 2010–11 school year. Carpe Diem began as a traditional charter school in 2002. But when it lost its building lease and its budget was slashed, it had to rethink everything about its operations. Already growing increasingly uncomfortable with the staid traditional school model, the head of the school, Rick Ogston, in the 2005–06 school year, moved decisively to technology and blended learning to transform his school model in dramatic ways.

Carpe Diem now looks strikingly different from the average school. Students work with online curricula for 35 minutes at a time in a large room of 280 cubicle-like workstations, where paraprofessionals are available for support (Staker & Horn, 2012). Around the perimeter are breakout rooms separated by transparent glass, to which students rotate on an as-needed basis for support in small-group instruction, seminar discussions, traditional instruction, and group projects and labs. The school has only four certified teachers in the core academic subjects for its 280 students—one each in mathematics, science, English, and social studies. Instead of traditional physical education, the school has what is in

essence a fitness center on-site, to which students can go for a 35-minute rotation if they want to get a workout in and blow off some steam. A certified trainer staffs the gym and helps educate the students on healthy living. In addition to the paraprofessionals and four teachers, the principal of the school is also on the floor to help students with their learning and teachers with their teaching.

After its transition to a blended-learning model, the results of Carpe Diem students soared and have continued to improve yearly. With 60 percent of the students eligible for free or reduced-price lunch and minorities constituting 48 percent of the students, in 2010, Carpe Diem ranked first in its county in student performance in mathematics and reading and ranked among the top 10 percent of Arizona charter schools. With an innovative human capital model in place, Carpe Diem's operational costs are less than the already low revenues it receives in Arizona, and because of its physical layout, its building footprint cost 2.5 times less per pupil to build than that of a neighboring school. As funders and policymakers from across the United States began traveling to Yuma to learn the secret behind Carpe Diem's success, and as Carpe Diem began planning to expand, the charter school community took further notice.

Established charter school players, such as the Alliance College-Ready Public Schools, started experimenting in the world of blended learning. And then KIPP—known for its great student results, hard work ethic, and costs greater than what the public funds—jumped into the deep end in one of its schools. Unexpected budget cuts prompted KIPP Empower Academy in Los Angeles to open in 2010 with a model where students rotate between teacher-led instruction and online learning, which allows the school to maintain an individualized, small-group approach to instruction. The results have been amazing: In 2011–12, at least 96 percent of the students in both grade levels that the school serves scored at or above the national average on the SAT-10 test.

It now appears that the majority of CMOs in California are beginning to adopt or experiment with blended learning. Of the 43 California CMOs that we surveyed in summer 2012, 12 CMOs responded, including Rocketship. All 12 were using online learning in some fashion: 11 were using blended learning (in two thirds of their schools, on average), and the 12th was a full-time virtual school in which learning centers were available for students but not required. Some CMOs that did not respond to the survey are using blended learning, and their efforts have

been chronicled online.[3] But even just the responders reflect more than one fourth of California CMOs; the fact that all of them are engaged in virtual or blended learning reflects a marked change from only a few years prior.

Another survey, from the California Learning Resource Network (CLRN), which was conducted in spring 2012, examined the use of online learning in all California schools—not only charters—and confirmed the directional findings of our own survey (Schwirzke, Rouse, & Bridges, 2012). Of the schools that responded, 57 were managed by 13 CMOs. Of these, 36 schools (73 percent) reported that students learned online in some capacity.[4]

Our survey found that schools were using blended learning the most in mathematics. When asked to rate how integral blended learning was in the instruction of individual subjects on a scale of 1 (*lowest*) to 4 (*highest*), the average responses were as follows:

- Mathematics: 3.2
- English: 2.2
- Science: 1.9
- Foreign language: 1.9
- History/social studies: 1.8
- Other electives: 2.0

Some leaders in the sector report that they like using online learning because it can help students develop ownership of their learning, which presumably might help them succeed in college, where the robust support networks that the no-excuses CMOs provide will not envelop them. Many leaders also consider the move to blended learning an opportunity to transform their teaching models in a variety of ways—with the primary motivation being to give teachers more time for one-on-one and small-group teaching. In many ways, charter leaders are using the online learning programs to offload some basic learning tasks, so their teachers have more opportunities to personalize and deepen the learning for students.

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[3] See the Christensen Institute's profiles of blended-learning models and www.blendmylearning.com for examples.

[4] Our examination of the CLRN survey found that it may have been underreporting the use of online learning. For example, Alliance College-Ready Public Schools and Summit Public Schools told CLRN that they had no plans to use online learning, but in our survey, they reported already using blended learning and having extensive plans to continue. In conversations with leaders at both CMOs, we learned that blended learning is, indeed, a big part of their future plans.

Of the 11 CMOs using blended learning, all reported that they were doing so at least in part to improve student learning, and 5 reported that cost savings or sustainability was a factor.[5] This is yet another reason that California may be a bellwether for the rest of the United States in education; school budgets in California, an already low state for per-pupil allocations, have seen significant cuts in the last few years, with no relief in sight. Charter school funding is even lower. The threat of unfunded public pension liabilities and health care obligations for soon-to-be retiring baby boomers also loom on the horizon. Many of California's CMOs may need the productivity boost from blended-learning models to survive; necessity will be the mother of innovation.

Some charter networks are already innovating aggressively. The Alliance College-Ready Public Schools in Los Angeles piloted BLAST (Blended Learning for Alliance School Transformation) in two of its high schools in 2010–11, and now has expanded the model to four high schools and three middle schools, with promising early results (Alliance College-Ready Public Schools, n.d.). The BLAST model creates efficiencies in human capital and instructional materials, which should allow the network of schools to be far more sustainable and scalable. In the BLAST high school model, for example, classes have a 48:1 student-teacher ratio, but students rotate in groups of 16 between teacher-led instruction, online learning, and collaborative small-group work.

Summit Public Schools, a small charter network in California, is also beginning to innovate with blended learning. It is using blended learning in several schools, and in fall 2013, it plans to open two next-generation schools in the area around San Francisco Bay that will be founded on the principle of competency-based learning. At the schools, according to one description, "Summit plans to break down silos between grades and content to allow students to move at their own pace, both academically and physically" (Next Generation Learning Challenges, 2013). Still in the planning stages, Summit has already launched an early prototype of its competency-based model at a school in San Jose, in which students are learning at different rates and taking increasing ownership for their own learning. Summit's team is also working with Illuminate Education to build an online platform to track student progress against the different competencies and create easy ways to find the specific online curricula and assessments that align to those competencies.

[5] Ten CMOs reported that they were using blended learning to differentiate or personalize learning options for students, and two reported that they were using it to improve student achievement.

Notwithstanding these ambitious plans, many of the blended-learning models in California charters schools are still primitive. These networks are holding back and experimenting gradually, content to copy what others have done in small ways (and, according to our survey, sometimes wary of the quality of online content providers). Regardless, CMOs are innovating beyond their comfort zones, and teachers are gaining valuable experience in how their roles may change.

EXPERIMENTS GROW NATIONWIDE

Blended-learning innovations from charters are beginning to spread. The most disruptive charter networks, Rocketship and Carpe Diem, are scaling outside their original states. Rocketship will expand to Milwaukee in fall 2013. Carpe Diem opened its first school in Indianapolis in fall 2012.

Other established charter schools across the United States also are beginning to tinker with blended learning. Perhaps not coincidentally, many of these initial experiments have occurred in states where public financing for education is also low and declining. Established charters in Illinois and Texas—such as the 16 schools in the Chicago International Charter School network and several KIPP schools—have begun implementing blended-learning models. The number of charter schools experimenting in these states does not appear to be as high as in California, but momentum seems to be building. Philanthropic efforts, such as the Next Generation Learning Challenges, a multiyear grant program aimed at dramatically increasing college readiness and completion through applied technology, have sparked more charters to seriously consider moving to blended learning as well.

Experiments are occurring in more than just the most cash-strapped states. Some established CMOs in Connecticut, Massachusetts, and New York, such as Achievement First and Match Education, are trying blended learning. A new CMO, Touchstone Education, opened its first school in Newark, New Jersey, this year, with a blended-learning model in a school space that has echoes of Carpe Diem's design: glass-enclosed breakout rooms around the perimeter of a central learning space.

It is becoming clear that this current wave of innovation is not being driven by fiscal considerations only; blended learning has the potential to boost student achievement. Test scores from pioneers such as Rocketship and Carpe Diem

reveal the power of integrating online learning into the instructional day. In addition to its contributions to student learning, blended learning also has the power to transform human capital models, allowing teachers to spend their time with students more efficiently. These efficiencies free up resources for schools to hire paraprofessionals, pay teachers more, or use money in any other way that will support student learning. Other high-flying CMOs are noticing the benefits of blended learning and are attempting to replicate these outcomes using similar methods.

The best implementations of blended learning are not being driven by the desire to adopt technology for technology's sake. Where that has been the case, schools tend to struggle because they have not considered how the shift in the school model is more important than the technology in and of itself and how sound implementation requires a strong culture focused on each individual student's learning. For now, much of the charter sector appears to be heeding those lessons. As it does so, it appears that—at long last—the charter school sector is also becoming a beacon for innovation in not only how it improves on conventional schooling but also harnessing the promise of technology to fundamentally change schooling itself.

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Michael B. Horn is the cofounder and executive director of the education practice of the Clayton Christensen Institute for Disruptive Innovation (formerly Innosight Institute), a nonprofit think tank devoted to applying the theories of disruptive innovation to solve problems in the social sector. In 2008, Horn coauthored the book *Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns* (McGraw-Hill) with Clayton M. Christensen, a Harvard Business School professor and the father of disruptive innovation theory, and Curtis W. Johnson, president of the Citistates Group. *BusinessWeek* named the book one of the 10 Best Innovation & Design Books of 2008 and *Newsweek* named it as the 14th book on its list of Fifty Books for Our Times. *Tech&Learning* magazine named Horn to its list of the 100 most important people in the creation and the advancement of the use of technology in education.

Tricia Maas is a research assistant at the Center on Reinventing Public Education and a student in the University of Washington's doctoral program for education policy. Her recent projects include research on charter school policies and performance, the use of blended learning, and human capital pipeline policies in education. Prior to her time at the University of Washington, Tricia taught high school mathematics in Charlotte, North Carolina, as a Teach For America corps member and at a KIPP charter school in San Jose, California. She holds bachelor's degrees in economics and French from the University of Richmond and a master's degree in education policy from Stanford University.